DOCUMENT RESUME

ED 142 635 UD 017 138

AUTHOR Robin, Fay
TITLE Goddard-Riverside Educational Camp Program, School Year 1975-1976.
INSTITUTION New York City Board of Education, Brooklyn, N.Y. Office of Educational Evaluation.
PUB DATE 76
NOTE 31p.; New York City Board of Education Function No. 20-63428

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS *After School Centers; Discovery Learning; Elementary Education; *Environmental Education; *Language Skills; *Program Evaluation; *Resident Camp Programs
IDENTIFIERS New York City Umbrella Programs

ABSTRACT

The Goddard-Riverside Educational Camp Program is a combination community center camp-city school program for New York City school children. Four hundred eighty fifth graders participated in the program. Groups of students with their teachers and program staff spent one week at the Goddard-Riverside Camp in upstate New York. As part of the program, extensive pre and post camp activities took place in the classroom and at cultural centers in New York City throughout the school year. This evaluation report concluded that participants in the program demonstrated significant increases in knowledge of scientific concepts. Significant improvement in written English was also achieved. Observations, interviews, and student journals were used as evidence that this program stimulated interests and motivated learning in natural sciences and other academic areas. A sample from the test used to measure progress is included in the appendix. (Author/JP)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED142635

EVALUATION REPORT

Function No. 20-63428

GODDARD-RIVERSIDE EDUCATIONAL CAMP PROGRAM

SCHOOL YEAR 1975-1976

FAY ROBIN

An Evaluation of Selected New York City Umbrella Programs funded under a Special Grant of the New York State Legislature performed for the Board of Education of the City of New York for the 1975-1976 school year

UD017138

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Dr. Anthony J. Polemeni, Director

BOARD OF EDUCATION OF THE CITY OF NEW YORK
OFFICE OF EDUCATIONAL EVALUATION
110 LIVINGSTON STREET, BROOKLYN, N. Y. 11201

TABLE OF CONTENTS

		Page
I.	The Program	1
II.	Evaluative Procedures	4
III.	Findings	7
IV.	Summary of major findings, conclusions, and recommendations	19
V.	Exemplary Program Abstract	25
	Appendix A: Sample Test	27

LIST OF TABLES

1. Table 1 - Data Analysis of Criterion Reference Tests in Science Concepts 7
2. Table 2 - Data Analysis of Written English Compositions 8

I. THE PROGRAM

The Goddard-Riverside Educational Camp Program is a combination community center resource camp-city school program, providing an opportunity for 480 fifth graders in District 3 to live, work and study in a natural environment, and to use the natural surroundings as a learning stimulus. Paired groups of students, with their teachers and program staff, spend one week at the Goddard-Riverside Camp at Rifton, New York. Activities focus on the natural sciences, using a discovery and direct experience approach to learning. Extensive pre- and post-camp activities take place in the classroom and at cultural centers in New York City throughout the course of the school year.

The program is designed to stimulate interests and develop skills and knowledge in natural sciences. It is hoped, moreover, that the program will stimulate additional benefits, promoting cognitive development in other areas, particularly reading and writing communication skills.

The principals of each of the sixteen elementary schools in District 3 selected one of their classes to participate. Criteria for class selection included: teacher interest in utilizing city and camp resources, bilingual classes, and classes needing specific program areas stimuli to help develop skills.

The pre-camp period included administrative start-up activities, planning, training and orientation meetings with staff and teachers in the city and at camp. Tests were developed and administered. Slide shows and introductory sessions were presented to students and parents. Programmatic activities were conducted in content areas to be developed at camp -- nature study, woodworking, mapmaking. Trips were taken to museums and other city resources.

The camp experience, the core of the program, involved two groups

of students with their teachers and paraprofessionals spending one week studying, living and working in the natural setting at Goddard-Riverside Camp.

The children in small groups spent approximately 3 hour periods twice weekly in each of four workshops: nature, woodworking, map making, and outdoor work. These workshops were conducted and directed by the program staff. Discovery, developmental, and a direct experience approach to learning were stressed.

The activities were designed to be naturally indigenous to the environment, and to provide a continuous intensive learning experience in a relaxed atmosphere.

The post-camp program involved a continuation and extension of activities in the city which were stimulated by the camp experience. Skills and knowledge acquired at camp were reinforced. Staff served as resources in the individual classrooms, and provided packets of recommended activities to teachers. They coordinated and conducted specific follow-up activities such as participation by a few classes in the Central Park Task Force Adopt a Rock Program, trips to museums and other resource spots, and specific activities geared for interests and needs of individual classes.

The program staff consisted of a part-time program coordinator, two lecturers, a driver, and a cook, plus 18 participating teachers and 14 paraprofessionals. Approximately 10 parents and 3 student teachers participated voluntarily. A third lecturer, a part-time administrator, clerical staff, and camp staff were provided additionally by Goddard-Riverside Community Center.

The program received official approval to begin operations on November 24, 1975. Informal start-up activities began earlier. The first

group attended camp on January 5th. The three staff people responsible for pre-camp, workshops, and follow-up activities (three lecturers) spent alternately two weeks at camp and two in the city on pre and post-camp activities. generally from January until the last group attended camp during the week of April 4th. Follow-up activities are expected to continue throughout the remainder of the school year.

II. EVALUATIVE PROCEDURES

Evaluation Objectives

Objective 1: Pupil participants will demonstrate significant increase in mastery of a teacher - staff made criterion referenced test in science concepts, administered on a pre- and post-test basis.

Objective 2: Pupil participants will demonstrate a significant improvement in written English, as measured by pre-post ratings of student compositions.

Objective 3: The program, as actually implemented, will coincide with the program as described in the proposal and any subsequent modifications.

Evaluation Procedures and Data Analysis for Objective 1:

A criterion referenced test of science concepts was developed by program staff and cooperating teachers in a weekend workshop. The test was administered to all students in the participating classes. It was made available to the students in English, Spanish and French, and was read to the students in the respective languages.

The pre-test was administered during the week of December 17-19, 1975, and the post-test during the week of April 12-14, 1976. Tests were scored and results recorded by program and Goddard-Riverside staff.

The data was analyzed by subjecting the mean difference between the pre- and post-test data to a one-tailed t-test for correlated scores, at the .05 level of significance.

For Objective 2:

All participating students were asked to write a one-page composition near the beginning and near the end of the school year, on a choice of topics selected by the staff. The pre-test was administered on December 17 through 19, 1975 and the post-test April 12 through 14, 1976.

The classroom teachers were asked to score the compositions, using

the following criteria:

a) Content

b) Sequence of ideas

c) Punctuation

d) Spelling

e) The ability to develop simple paragraphs.

The teachers graded each composition for each criterion on a scale from one to ten. The maximum score was fifty.

The data results of the pre- and post-compositions were analyzed to determine whether significant improvement was demonstrated, by subjecting the mean difference to a one-tailed t-test for correlated scores, at the .05 level of significance.

For Objective 3:

The program was monitored by the evaluator, from the beginning of the evaluation assignment throughout the program, for implementation of all program elements as described in the proposal.

Interviews were held with program administrators and staff and cooperating teachers on an ongoing basis. Visits were made to the camp twice, during different seasons. Visits were also made to representative classes in NYC involved in pre- and post-camp activities.

Observations were designed to contribute to an informal assessment of program implementation, student responsiveness, and overall program effectiveness in meeting program goals. Informal feedback from administrators, program and Goddard-Riverside staff, cooperating teachers, paraprofessionals, parents, and students were elicited for their perceptions of the program activities and program value.

Program records, teachers' reports, students' journals, written

daily while at camp, student written evaluations, and other written materials, such as packets to teachers, letters to parents and teachers, and workshop outlines were also reviewed, to contribute to an assessment of the program's implementation and effectiveness.

Results of a teacher-staff evaluation workshop which might have been helpful to the evaluation unfortunately could not be incorporated, because the workshop happened to coincide with the due date for the evaluation report.

It should be noted that all instruments were designed and pre-tests administered prior to the evaluation assignment, which began February 16, 1976.

III. FINDINGS

Findings for Objective 1: Increased Knowledge in Science

The following Table 1 demonstrates the results of the science criterion referenced pre- and post-test data analysis. The population size (N), means, standard deviations and t statistic (comparison of matching pre- and post-test means) are presented in the table.

Table 1

Pre-Test Only			Post-Test Only			Correlated Data					
N	Mean	S.D.*	N	Mean	S.D.	N	Pre-Test Mean	Pre-Test S.D.	Post-Test Mean	Post-Test S.D.	t
402	34.8	9.6	366	40.8	8.9	305	35.6	9.4	41.4	8.9	14.64

*S.D. = Standard Deviation

Of the program participants, 402 were present for and took the pre-test in science concepts. A total of 366 students sat for the post-test administration. Matching pre- and post-test data have been obtained for 305 students. The matched testing population was found to be representative of the total population of participants.

The data indicated that the criterion for success was effectively met. The correlated data of Table 1 indicate that the average participant scored 35.6 on the pre-test, and 41.4 on the post-test. The mean difference of 5.8 (41.4 minus 35.6) yields a correlated t statistic of 14.64. With 304 degrees of freedom (N=305), this t value is significant beyond the .0005 level. In other words, a mean difference as large as 5.8 would only occur by chance fewer than five times in ten thousand. This difference was therefore probably attributable to something systematic (i.e., program participation), and easily surpasses the .05 level success criterion. Inspection of the standard deviations indicate moreover that the group became slightly more homogenous

in their science concepts ability as they moved through the program of intervention.

Although the success criteria were easily and effectively met, it should be noted that due to late funding and late program initiation, pre-camp activities were limited. Moreover, at the time of post-testing, post-camp activities by program staff had not yet begun. Therefore the testing period does not measure the full program impact. The results are limited to the effect of the one week at camp and to any voluntary informal follow-up by teacher, without subsequent formal programmatic follow-up. Had post-tests been administered at a later date, it would be expected that the test scores would be even higher, and the success criterion met with even more impressive results.

Findings for Objective 2: Improvement in Written English

Table 2 below demonstrates the results of the analysis of the pre- and post-composition used to test the growth in written English skills as a result of the program's intervention. The population sizes (Ns), means, Standard deviations and t statistic (comparison of matching pre- and post-test means) are presented in Table 2:

Table 2

Pre-Test Only			Post-Test Only			Correlated Data					
N	Mean	S.D.	N	Mean	S.D.	N	Pre-Mean	Pre-S.D.	Post-Mean	Post-S.D.	t
312	29.4	11.5	285	34.3	10.0	210	29.8	11.9	34.9	9.6	8.93

Graded composition scores were recorded for 312 students at pre-test and 285 at post-test. Matching pre- and post-test data have been obtained for a total of 210 program participants. While this sample is somewhat

smaller than that obtained for Objective 1, there is, nevertheless, no reason to suspect that it is not representative of the total population. Apparently the program staff had greater difficulty securing data of this type than they did with the more conventional criterion referenced data of the first objective.

The data shows that the program well met its success criterion. The correlated data of Table 2 indicate that the average participants scored 29.8 on the pre-test, and 34.9 on the post-test. The mean difference of 5.1 (34.9 minus 29.8) yields a correlated t statistic of 8.93. As with Objective 1, this t value is significant beyond the .0005 level (degrees of freedom = 209). The systematically large mean difference would have only occurred by chance fewer than five times in ten thousand. This difference, therefore, also easily surpasses the .05 level success criterion. Inspection of the standard deviations indicates that the group once again became slightly more homogeneous in their writing skills as they progressed through the intervention cycle.

These results were well above program criteria; however, not as dramatically so as for Objective 1. This is not unexpected, however, considering that the focus of program activities was upon the natural sciences; and achievement in other areas such as English skills was a correlative goal, hoped to be achieved by the stimulation of greater academic interests and a sense of individual confidence and growth.

The program staff felt that due to the hurried preparation and administration of the compositions that the administration and scoring of the compositions, particularly the pre-test were not as reliable as might have been desired. Some of the teachers were said not to have accurately followed instructions; and, considerable inconsistency was noted in grading levels.

However, because the same teachers scored the post- as the pre-tests for the same groups, such inconsistencies should have been at least partially balanced out. Moreover, it was felt by staff that the pressure of testing atmosphere was not most conducive to expressive writing, and therefore not as accurate a measurement of writing skill as might have been employed.

As expressed for Objective 1, the administration of the post-test prior to the post-camp enhancement and reinforcement activities, suggests that even higher post-tests scores and greater pre-posts growth might have been anticipated had the post-tests been administered at the completion of the program.

It should be noted that since the implementation of a control group design was not feasible, it is impossible to predict how much growth would have been demonstrated due to natural maturation and other extraneous variables. (Attempts to derive a control group were unsuccessful, as is commonly found in educational evaluations.) But, given the large and systematic differences which were obtained, one can be reasonably confident in attributing the bulk of the progress to the intervention program. The success criteria for both the first and the second evaluation objectives were substantially exceeded.

Findings for Objective 3: Implementation

Observations, interviews, and a review of written materials demonstrated the program to be implemented essentially in accordance with program specifications. It was found to be well designed and well implemented to meet program objectives and to afford pupil benefits. The camp experience provided an innovative stimulus for learning. City students, many of whom had never been in the country or away from home, enjoyed a multitude of new and exciting learning experiences--from riding a bus on a mountain road, to seeing and identifying stars, feeding animals, saving scraps from meals for pigs, chopping wood, stoking fires, observing remains of early farm houses, tapping trees for maple syrup and then eating the syrup for breakfast, making bird houses, gathering wild onions, mapping a pond, identifying animal tracks, and more. The opportunity to share these experiences with classmates and teachers in an uninterrupted learning situation, was found through observation and interview, to contribute greatly to the value.

The camp was located in a lovely and varied rural country setting near forests, mountains, ponds, and farms, providing an appropriate environment for the study of natural phenomena and man's interaction with nature. Students lived in comfortable and well maintained dormitories. They had common activities and meals in a large hall. The food was wholesome and excellent, and according to student journals, was a most memorable part of the experience. The students participated in camp maintenance activities, serving, and on a limited scale, in preparation of food. They were exposed, through this enironment, and working with the full time camp staff, to a small country community.

A working farm was started at the camp near the end of the program period, which will provide a beneficial opportunity for future student participation.

The workshop activities formed the learning core of the program, and comprised the majority of the students' time. They were found to be well designed to relate integrally to the natural setting, and to provide a stimulating and intensive continuous learning experience. Intellectual concepts, facts, and skills were taught through direct experience and discovery approach to learning. Children were involved naturally in making things, doing, collecting, and observing. They worked individually and in small groups. In a change of focus from prior years, the program content stressed the natural sciences. The change was felt by participating staff and teachers previously familiar with the program, to have enhanced the program. All academic activities were felt to be directly relevant to the living experiences and the environment, and to be meaningful to the students.

The nature studies workshop involved a study of farm animals, forest study, pond water investigation, geological study, and use of plant and animal life by man currently and historically in the area. Small groups of students were seen observing and exploring the surroundings, identifying and collecting vegetation, and discussing their findings. The intellectual content was intensely compact. Many of the children asked numerous questions and were evidently intrigued, involved and highly motivated.

Woodworking involved study of historical functions of wood, use and care of tools, construction, wood carving, and study of the effectiveness of wood as fuel. Each of the students created objects in wood. Many of the

students were apparently thrilled by discovering their ability to use the tools and the responsibility afforded them to work the equipment on their own. They were extremely proud of their products.

Map study involved a study of cardinal directions, measuring distances, converting measurements, study of the sun and its relation to direction, and compass. The children visibly enjoyed creating representational maps of areas of the camp, and the process of applying theoretical math to concrete situations.

Outdoor work involved making maple syrup, and conservation activities such as chopping wood, shoveling manure, feeding animals. Ecological relationships were stressed. The students were found to be pleased and fascinated with participating in the processes of making food and then eating it, saving food and then feeding animals. Maple syruping was apparently a highlight.

The activities succeeded in being not only integral to the environment, but likewise interrelated with each other. For example, students would learn characteristics of, and identify, various trees in the nature studies workshop, chop wood in outdoor work, learn uses of wood and make wooden objects in woodworking, and draw representational maps of the forest in map making.

General skills such as measurement, classification, scientific investigation, observation, inductive reasoning, use of tools, etc. were continuously taught in all of the workshops.

The staff was found to be highly competent and extremely knowledgeable in their particular workshop areas. They provided knowledge, direction, and skills, which were comprehensive and flexible. They were able to apply their knowledge and skills to individual and group needs and interests. The nature specialist's background was sufficiently extensive, for example, to permit thorough discussions about the children's observations and discoveries

made while walking through the woods. Similarly, the woodworking specialist was able to supervise the students in any project they chose to make.

The rapport between staff and students was found to be exceptionally good and highly conducive to a relaxed, positive, informal, yet academically intense atmosphere. The staff and students were on a first name basis. The staff created a contagiously warm, friendly, fun atmosphere, assuming respect for individuals and the environment.

The students were observed to be generally happy, confident, comfortable, and mature. They appeared to be thoroughly involved in learning, and expressed enthusiasm about their activities. Their journals reflected their love of the environment and the staff, and the self-respect they developed from doing things they were unaware they could do. Journals frequently mentioned how beautiful and "spread-out" everything was, the quiet, funny incidents with friends, how much they were learning, how much fun it was, how "kind" the people were, how they "let them" do so many things, how much they learned about themselves. The children regarded the people and the animals as their friends. Many were sad to have to leave.

Sharing experiences and responsibilities, and living, learning and working together with their classmates, was reported to be a significant aspect of the program. It was found to enable the children to see themselves and each other differently in the different environment. Teachers indicated there was considerably less fighting and more cooperation. Sharing such out-of-classroom experiences with their teachers was said to draw classes into much closer units, where everyone emerged as more real human beings.

The degree of interaction of the paired groups was found to vary. The participating classes represented a variety of socio-ethnic groups. As proposed, a proportion were bilingual. Four groups were Spanish and one French.

In one of the paired groups observed, the two classes, both Spanish bilingual, merged beautifully and became almost as one group. In another less successful week, two culturally and ethnically different groups were said to have begun wary of and to have ended antagonistic towards each other. Most of the other groups, in varying degrees of closeness and interaction, were said to have learned from living with different classes. As pointed out by one teacher, this provided an excellent social preparation for junior high school. It was strongly recommended by a few teachers that prior meetings be arranged to help prepare the children for the interactions.

In addition to the workshops, meals, journal writing, and free time, the children went on hikes and took occasional trips to points of interest. Evening activities were planned by the teachers. These were said to vary in effectiveness and content according to the teachers. Teachers were also responsible for the dormitory, and general discipline.

The teachers and paraprofessionals interviewed were unanimously enthusiastic about the program and the benefits afforded the students. They observed tremendous personal growth, sense of personal well-being, and excitement and enthusiasm for learning. They found the program to be highly successful in stimulating interests. One teacher indicated, for example, that some children who were previously reluctant to write, were so enthusiastic about writing in their journals that they chose to miss a hike. Motivation, enthusiasm for learning, self-expression, and development were apparent.

The factors stressed most by teachers and paraprofessionals as contributing to the excellence of the program were the skill and attitude of the staff, the content and implementation of the workshops, the exposure to the natural setting and environment, and the process of living together. Sug-

gestions made by participating teachers and paraprofessionals were (1) that last minute shifts in scheduling be avoided, if possible, so that students might for example finish projects as originally scheduled; (2) that Goddard-Riverside staff be available for summary discussion and journal writing, or that summary materials be available for students to help them recall and summarize concepts learned; (3) that teachers' roles be better clarified; and (4) that more supplies be provided, particularly books.

The teachers' individual utilization of the program in the classroom was found to be varied. Several were uncertain as to how they would incorporate the experience into the curriculum or follow-up. Others had many ideas about using it as a core curriculum for reading, math and other subjects. Others, especially with well developed science, ecology and relevant social studies programs, felt it supplemented and inspired ongoing activities in their classes.

Although application of the program's principles, approaches, and content by teachers in the classroom was not a specific program objective, the program appeared to have a multiplying effect. Some of the teachers indicated that their own approach to teaching, as well as content, were positively affected by the experience. One teacher, for example, was interested in seeing how well her class worked in small groups. Another was interested in applying more continuously a direct experience approach to learning. Program staff felt and it was observed that greater pre-planning, teacher training and sharing of ideas by teachers might have enhanced this rich aspect of the program. Greater individualized and group planning are anticipated, if feasible, for next year. They were not more extensive in this program year, partly because of late funding, and staff-time constraints. Moreover, the lecturers were new to the program, and programmatic details were developed by them during this program year. Priorities by necessity went to more essential program activities and objectives.

The pre-camp phase included a weekend orientation for teachers at camp, a museum project at the Museum of Natural History Hall of Forestry, slide shows and orientations to each of the workshops for students, plus all of the administrative responsibilities, of selecting classes, writing parents and teachers, developing curricula and schedules, designing and implementing evaluation instruments. Because the program was funded ten weeks later than scheduled, all of the pre-camp activities had to be condensed, and some of the extensive programmatic preplanning had by force to be limited. The staff was found to have done an impressively effective job in accomplishing the required tasks in the time allotted.

The follow-up activities, conducted by the staff, provided an excellent resource for classes interested in furthering skills and knowledge developed at camp, and pursuing particular areas of learning geared for individual groups, such as city planning maps, geological studies of rocks in Central Park, and studies of Indian habitats and living patterns in natural settings in New York City. Moreover, several of the groups, with the supervision and direction of the Goddard-Riverside Educational Camp Program staff, participated in the Central Park Task Force Adopt a Rock Program. In a particular area of the park, they studied the soil, discerned desirable and undesirable vegetation, mapped, cleaned up and landscaped the area. This was found to be another example of the way in which the program served to combine institutional and human resources into beneficial learning experiences. The same rapport and thoroughness of knowledge was demonstrated in the follow-up activities.

Major problems noted by program and administrative staff concerned late funding and staff shortages. The late funding was said to have:

shortened the program, caused hurried instrument design and administration, limited programmatic - as compared with administrative - pre-camp work with teachers, prevented more groups from attending camp in the warmer months, and prevented follow-up activities until after all the groups attended camp. The staff was unable to visit each class one-half day weekly as scheduled. Early program approval was the major recommendation from the prior years evaluation.

Secondly, there were a few staff changes. In the absence of a full-time camp director, a part-time supervisor operated in a liaison with the schools. A part-time trainer provided orientation. Student teachers were not added to the program because of administrative difficulties. A full-time lecturer and part-time clerical and administrative staff were supplied additionally by Goddard-Riverside Community Center. It was felt by the staff that the program could not have operated without these additions.

Despite time and staff limitations, the program was found to be efficiently and responsibly administered. Records were detailed and organized, roles clear and well actualized; activities were efficiently and effectively implemented.

IV. SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Findings

The Goddard-Riverside Educational Camp Program was found to have been highly successful in accomplishing its evaluation objectives. Data indicated significant results in increasing knowledge of science and in improvement in written English skills. The program was found to have operated essentially in compliance with program specifications. It was found, moreover, to be designed and administered in a manner highly conducive to accomplishing program goals, and to afford significant benefits to the students beyond the stated program objectives. The test results were corroborated by interviews, observations, and written materials; all of these reinforced the conclusion that the program served as an effective stimulus to learning, and additionally enhanced personal and social development. Students were observed to be highly responsive and enthusiastically involved. All participating students, teachers, and other staff people were unusually enthusiastic about the experience.

Some factors which were found to have contributed to the program's success were:

--the unique opportunity for students to live, work, and study with peers and teachers in a beautiful country environment

--a developmental, discovery approach to learning

--well designed workshops integrated with the natural environment

--a competent, sensitive staff

--a positive, supportive, relaxed learning atmosphere

--small group activities

--student participation in the maintenance of the camp community

--efficient and responsible program administration

--a cooperative team approach between community resources and schools

--use of relevant city and cultural resources in pre-camp and follow-up activities

A principal problem involved late funding, causing a foreshortened program. Secondly, there were substantial staff shortages, which were filled in by the Goddard-Riverside Community Center staff.

Conclusions

The Goddard-Riverside Educational Camp Program was highly successful in achieving its program goals. It was well designed and well implemented, in compliance with program guidelines. Contributing to the program's outstanding success were:

--its unique opportunity for exposure to country living and the natural environment;

--its well structured and creative workshops, naturally integrated within the setting;

--the highly knowledgeable, sensitive, and competent staff;

--the relaxed, supportive, positive learning environment;

--the experiential direct discovery approaches to learning;

--the small group activities;

--the responsible efficient administration; and

--the cooperative relationships between school and community resources.

City children, many of whom had never been to the country were provided an opportunity to enjoy and appreciate a natural environment and the study of nature, and to understand scientific concepts, processes, and skills through direct interaction with the environment, through the process of discovery, observation, and creation of their own projects, in a continuous, relaxed, supportive learning environment. The notably significant pupil test

achievement, the observed responsiveness, reported enthusiasm, motivation for learning, sense of optimism, self-worth, and social development indicate that the program was well suited to the pupils' needs and achieved the desired objectives.

Recommendations

1. It is strongly recommended that this highly successful and outstandingly beneficial program be refunded, and if possible expanded.

The following additional recommendations are not to be considered germane to program success, but rather suggestions for expansion and enhancement of an already excellent program.

2. Funding decisions and contractual arrangements should be made early enough to enable program operations to begin at the beginning of the school year. This would facilitate administration, permit more extensive pre-camp activities, allow more students to attend camp in warmer months, and provide the full programmatic benefits which can only be realized from a full year's program.

3. Serious consideration should be given to adding staff positions to the program budget--specifically, an additional full-time staff person (lecturer), a clerical person, and a part-time administrator. These roles have been filled by Goddard-Riverside Community Center. They are essential to program operations, and in the event that Goddard-Riverside is unable to supply them, the program would be seriously impaired.

4. Because of its reported success when tried, teachers of paired classes should be encouraged to arrange for meetings of the groups prior to the camp experience. Meetings might include participation in activities relevant to the curriculum and experiences of the camp, such as nature studies in the park. This preparation should enhance the social interaction of all the groups. It should also aid in preventing potential tension among groups from different backgrounds. Joint follow-up is also advised to continue and enhance the shared academic and social experiences and build on the relationships developed.
5. For every 10 students, there should be at least one adult from the school, to ensure adequate supervision.
6. To enrich the interrelationship between the program and the schools, if staff is increased, and if feasible, comprehensive and ongoing planning should be conducted more extensively between the staff and the individual teacher. This should aid and encourage the teachers to develop curricula and concrete activities around the program experience and approach, suited to the specific interests and needs of their students. It should, moreover, help systematically link the program activities with those ongoing in the classroom. Such planning took place this year only on a limited scale, due to time and staffing constraints.
7. If feasible, provision should be made for additional educational supplies at camp, particularly nature books and reference materials.

8. Similarly, if possible, stipends might be provided for visiting speakers from the area to discuss relevant issues about the immediate region, to enrich the evening activities.
9. To enhance the program evaluation, and to permit the formal assessment to more directly reflect the outstanding program benefits, the following are recommended:
   a) the post-testing should take place later in the program year to permit the tests to reflect the full year program's impact.
   b) the program goals should be more fully articulated as program objectives, and for specific correlative benefits.
   c) consideration should be given to including the often reported psychological/social benefits as program objectives or benefits - so that this growth might be noted with appropriate formal and informal evaluation procedures and instruments.
   d) As recommended by program staff, professional assistance should be granted program staff in reviewing evaluation instruments.
10. Because many of the student and teacher participants expressed a strong desire for a second week's experience, if possible, provision should be made for groups who so desire to attend the camp for a second week. It would be advantageous for this to take place in a different season to expand the students' awareness of country life and the natural environment.
11. If time permits, the program might attempt to extend its resource services by providing referral information to schools,

teachers, parents, and students about relevant activities being conducted in museums and other city and extra-city resources.

V. THE GOODARD-RIVERSIDE EDUCATIONAL CAMP PROGRAM EXEMPLARY PROGRAM ABSTRACT

The Goddard-Riverside Educational Camp Program is a combination community center resource camp-city school program, providing an opportunity for 480 fifth graders in District 3 to live, work and study in a natural rural environment, and to use the natural surroundings as a learning stimulus. Paired groups of students, with their teachers and program staff, spend one week at the Goddard-Riverside Camp at Rifton, New York. Activities focus on the natural sciences, using a discovery and direct experience approach to learning. Extensive pre- and post-camp activities take place in the classroom and at cultural centers in New York City throughout the course of the school year.

The 1975-76 program was found to be highly successful and unusually beneficial. All evaluation objectives were effectively met. As proposed, participants demonstrated significant increase in knowledge of scientific concepts as measured by a pre- and post-comparison of a criterion referenced test; and significant improvement in written English as measured by pre- and post-graded compositions. Observations, interviews and student journals demonstrated, moreover, that the program was outstandingly successful in stimulating interests and motivating learning, both in the natural sciences and in other academic areas. It also expanded student horizons, developed a sense of self-worth, optimism and maturity, and enhanced social relations. Moreover, the program served to influence and extend the schools' use of community, natural and human resources in enriching the learning experiences for their students.

Major factors found to contribute to the program's outstanding success include the following:

- unique opportunities provided in the program. City children

were provided an opportunity to live, work and study in a rural community, and to experience the natural environment. Moreover, they shared these experiences with their classmates and teachers in a relaxed, uninterrupted, natural learning situation.

- developmental discovery approach to learning. Students' own direct experiences with the environment and nature became the basis for developing skills and knowledge.

- well designed creative workshops focusing on the natural sciences. Students participated in highly intensive workshops, which were naturally integrated with the environment and each other, and were well suited to the interests of the students.

- dedicated sensitive staff. Staff was highly knowledgeable and competent in the content and skill areas of their workshops. The rapport with students was excellent. They created a contagiously warm, positive, supportive and respectful atmosphere.

- efficient and responsible program administration. Administration was thorough and timely.

- cooperative team effort utilizing school and community resources.

The outstanding achievements of this program will merit its refunding and expansion.

Appendix A

Goddard-Riverside
Educational Camp Program
1975 - 1976

School_____

Student's Name_____

Teacher's Name_____

Date_____

TEST OF KNOWLEDGE AND CONCEPTS OF SCIENCE

Put an X next to the correct answer of the following:

1. The bark of a tree is most like

___ a. stomach
___ b. brain
___ c. skin
___ d. bones

2. In the winter the temperature at the bottom of a lake is

___ a. same as the surface
___ b. colder than the surface
___ c. warmer than the surface
___ d. below freezing

3. Besides smelling, a pig's snout is used for

___ a. drinking water
___ b. digging
___ c. eating insects
___ d. making wallets

4. Maple syrup comes from

___ a. crushing berries
___ b. tapping trees
___ c. pressing leaves
___ d. boiling roots

5. Which of the following trees does not lose its leaves in winter?

___ a. birch
___ b. oak
___ c. maple
___ d. cedar

6. Trees develop buds in

___ a. spring
___ b. summer
___ c. winter
___ d. fall

7. The main groups of living things are

___ a. plants & animals
___ b. plants & people
___ c. people & animals
___ d. plants, animals & people

Appendix A

Test of Knowledge and Concepts of Science Student's Name_____

The following questions have more than one correct answer:

30. Put an X in front of 4 characteristics of all birds.

___ a. feathers
___ b. scales
___ c. lay eggs
___ d. fur
___ e. cold blood
___ f. wings
___ g. gills
___ h. teeth

31. Put an X in front of 4 characteristics of all mammals.

___ a. feathers
___ b. scales
___ c. nurse their young
___ d. warm blood
___ e. fur
___ f. gills
___ g. nails or claws
___ h. lay eggs

32. All animals have some form of protection. Put an X in front of the things that give animals protection.

___ a. skins
___ b. homes
___ c. trees
___ d. color changes
___ e. enemies

33. Put an X in front of the <u>living</u> things that are found in New York City.

___ a. plants
___ b. people
___ c. cars
___ d. squirrels
___ e. telephone poles
___ f. coakroaches
___ g. trees
___ h. streets

34. Complete each sentence by writing in the correct tool from the right hand column.

a. To carve a piece of wood a _____ is used.
b. To hold a piece of wood on a table a _____ is used.
c. To put a nail in a piece of wood a _____ is used.
d. To measure a piece of wood a _____ is used.
e. To cut down a tree a _____ is used.
f. To chop a log a _____ is used.

chisel
axe
saw
hammer
ruler
clamp

35. Wood is used by man in many ways. Put an X next to four of the following that are made of wood.

___ a. furniture
___ b. cement
___ c. carvings
___ d. brick
___ e. fuel
___ f. shelter
___ g. glass
___ h. tires